

OUTER BAR, MOBILE BAY, ALABAMA.

L E T T E R

FROM

THE SECRETARY OF WAR,

TRANSMITTING,

IN RESPONSE TO RESOLUTION OF THE SENATE OF JANUARY 9, 1901, HOUSE DOCUMENT NO. 219, FIFTY-SIXTH CONGRESS, SECOND SESSION, CONTAINING THE REPORT OF MAJOR ROSSELL, UNITED STATES ENGINEERS, WITH ESTIMATE FOR OPENING THE OUTER BAR AT MOBILE BAY, TOGETHER WITH HIS RECOMMENDATIONS THEREON.

JANUARY 11, 1901.—Referred to the Committee on Commerce and ordered to be printed.

WAR DEPARTMENT,
Washington, January 10, 1901.

SIR: In response to Senate resolution of yesterday's date directing the Secretary of War "to send to the Senate the report of Major Rossell, of the United States Engineers, of the survey and estimate for opening the Outer Bar at Mobile Bay, together with his recommendations thereon," I have the honor to transmit herewith House Document No. 219, Fifty-sixth Congress, second session, containing the report above referred to.

Very respectfully,

ELIHU ROOT,
Secretary of War.

The PRESIDENT PRO TEMPORE OF THE UNITED STATES SENATE.

House Document No. 219, Fifty-sixth Congress, second session.

LETTER

FROM

THE SECRETARY OF WAR,

TRANSMITTING,

WITH A LETTER FROM THE CHIEF OF ENGINEERS, REPORTS OF
EXAMINATION AND SURVEY OF MOBILE HARBOR, ALABAMA.

DECEMBER 19, 1900.—Referred to the Committee on Rivers and Harbors and ordered
to be printed.

WAR DEPARTMENT,
Washington, December 18, 1900.

SIR: I have the honor to transmit herewith a letter from the Chief of Engineers, United States Army, dated December 17 instant, together with copies of reports, dated respectively June 25 and December 1, 1900, from Maj. William T. Rossell, Corps of Engineers, of a preliminary examination and survey made by him in compliance with the provisions of the emergency river and harbor act of June 6, 1900, of Mobile Harbor, Alabama, with a view to obtaining channels of a width of 300 feet at the bottom across the bar below Fort Morgan, with appropriate side slopes, and with mean depths of 25 and 30 feet, respectively.

Very respectfully,

ELIHU ROOT,
Secretary of War.

The SPEAKER OF THE HOUSE OF REPRESENTATIVES.

OFFICE OF THE CHIEF OF ENGINEERS,
UNITED STATES ARMY,
Washington, December 17, 1900.

SIR: I have the honor to submit the accompanying copies of reports, dated respectively June 25 and December 1, 1900, by Maj. William T. Rossell, Corps of Engineers, giving the results of a preliminary examination and a survey, required by the emergency river and harbor act of June 6, 1900, of Mobile Harbor, Alabama, with a view to obtaining channels of a width of 300 feet at the bottom across the bar below Fort Morgan, with appropriate side slopes, and with mean depths of 25 and 30 feet, respectively.

The cost of obtaining channels at this locality of the width and depths prescribed in the act is estimated as follows:

For a 25-foot channel	\$13, 750
For a 30-foot channel	91, 750

For the reasons given by Major Rossell he is of opinion, concurred in by the division engineer, Col. Peter C. Hains, Corps of Engineers, that the improvement of this portion of the harbor to a depth of 30 feet is a work worthy of being undertaken by the General Government.

Very respectfully, your obedient servant,

JOHN M. WILSON,
Brig. Gen., Chief of Engineers,
U. S. Army.

Hon. ELIHU ROOT,
Secretary of War.

PRELIMINARY EXAMINATION OF MOBILE HARBOR, ALABAMA, WITH A VIEW TO OBTAINING CHANNELS OF A WIDTH OF THREE HUNDRED FEET AT THE BOTTOM ACROSS THE BAR BELOW FORT MORGAN, WITH APPROPRIATE SIDE SLOPES, AND WITH MEAN DEPTHS OF TWENTY-FIVE AND THIRTY FEET, RESPECTIVELY.

UNITED STATES ENGINEER OFFICE,
Mobile, Ala., June 25, 1900.

GENERAL: The act of Congress approved June 6, 1900, "making provision for emergencies in river and harbor works, for certain surveys, and for the diversion of certain appropriations or modification of provisions heretofore made," provides for preliminary examination as follows:

Alabama—Mobile Harbor: With a view to obtaining channels of a width of three hundred feet at the bottom across the bar below Fort Morgan, with appropriate side slopes, and with mean depths of twenty-five and thirty feet, respectively.

The duty of making this preliminary examination in this case was assigned to me by Department letter dated June 13, 1900. I have the honor to report as follows:

Inside of Mobile Point, on which is situated Fort Morgan, is an anchorage with a depth greater than 30 feet at mean low water, about 1 mile wide and three-fourths mile long. This would furnish a safe berth for vessels desiring either to coal or finish loading. The proposed depth of water from this anchorage to Mobile is 23 feet. This port, lying as it does at the mouth of the great river system, reaching into the coal fields of Alabama, will probably be able to furnish coal to steamers plying in the Gulf of Mexico, and war vessels, more promptly and cheaper than any other port on the Gulf. This anchorage, so near the Gulf, can be used by such vessels with a minimum of delay. The commerce of Mobile shows quite a large increase this year over last. Figures furnished by the chamber of commerce show the following:

Exports during fiscal year ending June 30, 1899	\$8, 902, 119
Imports during fiscal year ending June 30, 1899	1, 590, 648
Total	10, 492, 767
Exports during eleven months of fiscal year ending June 30, 1900	12, 615, 290
Imports during eleven months of fiscal year ending June 30, 1900	2, 493, 699
Total	15, 108, 989
The estimated total amount of exports and imports for the fiscal year ending June 30, 1900, is	18, 000, 000

From the latest Coast Survey chart a rough calculation indicates that the removal of about 250,000 cubic yards of material will give a channel 300 feet wide at bottom, with 30 feet of water to the Gulf.

In view of the magnitude of the interests involved and the comparatively small amount of work to be done, I am of the opinion that the entrance to Mobile Harbor below Fort Morgan is worthy of improvement.

As the soundings of the Coast Survey were taken some years ago, I am of the opinion that a new survey is necessary, and estimate the cost of same at \$800.

I inclose a blue print¹ of the Coast Survey chart, from which the figures in this report were taken.

Respectfully submitted.

WM. T. ROSSELL,
Major, Corps of Engineers.

Brig. Gen. JOHN M. WILSON,
Chief of Engineers, U. S. A.
(Through the Division Engineer.)

[First indorsement.]

U. S. ENGINEER OFFICE,
Baltimore, Md., June 28, 1900.

Respectfully submitted to the Chief of Engineers, United States Army, and recommended for approval, the harbor, in my opinion, being worthy of improvement.

PETER C. HAINS,
Colonel, Corps of Engineers,
Division Engineer, Southeast Division.

[Fourth indorsement.]

OFFICE CHIEF OF ENGINEERS,
U. S. ARMY,
July 17, 1900.

Respectfully submitted to the Secretary of War.

This report relates to preliminary examination of Mobile Harbor, Alabama, required by the emergency river and harbor act approved June 6, 1900 (full text of item quoted within).

In view of the interests involved and of the comparatively small amount of work to be done, the locality is reported to be worthy of improvement, and I recommend that a survey be made and that estimates of cost under alternative plans be prepared, the expenses of this work to be paid from appropriations for improving Mobile Harbor.

A. MACKENZIE,
Acting Chief of Engineers.

[Fifth indorsement.]

WAR DEPARTMENT,
July 19, 1900.

Approved as recommended by the Acting Chief of Engineers.
By order of the Secretary of War:

JOHN C. SCOFIELD,
Chief Clerk.

¹ Not printed.

SURVEY OF MOBILE HARBOR, ALABAMA, WITH A VIEW TO OBTAINING CHANNELS OF A WIDTH OF 300 FEET AT THE BOTTOM ACROSS THE BAR BELOW FORT MORGAN, WITH APPROPRIATE SIDE SLOPES, AND WITH MEAN DEPTHS OF 25 AND 30 FEET, RESPECTIVELY.

UNITED STATES ENGINEER OFFICE,
Mobile, Ala., December 1, 1900.

GENERAL: The act of Congress approved June 6, 1900, "making provision for emergencies in river and harbor works, for certain surveys, and for the diversion of certain appropriations or modification of provisions heretofore made," requires a preliminary examination as follows:

Alabama—Mobile Harbor: With a view to obtaining channels of a width of 300 feet at the bottom across the bar below Fort Morgan, with appropriate side slopes, and with mean depths of 25 and 30 feet, respectively.

I was charged with the duty of making this preliminary examination by Department letter of June 13, 1900. My report on same was submitted to the Department June 25, 1900, and by Department letter dated July 23, 1900, I was directed to make a survey for same.

A party was organized and survey made during August, 1900. However, a severe storm visiting this coast early in September, 1900, caused certain visible changes in the islands bordering the channel, and I felt it necessary to repeat the soundings to determine the condition of the channel after the storm. This work was unavoidably delayed by bad weather and the absence on leave of Assistant Engineer Reed, who had charge of the survey, until the latter part of October, 1900. The final field work was finished in November.

I inclose a tracing¹ showing the shore lines near the channel and the depths found over the bar. The area sounded is shown in the shaded area, and the soundings are on an enlarged scale at the side of the map. I find that the length of channel to be dredged across the bar to give a 25-foot channel is 1,900 feet, and for 30-foot channel, 4,300 feet. I have assumed that side slopes of 1 on 5 will be appropriate for this work.

To dredge the 25-foot channel will require the removal of about 55,000 cubic yards of material, and for the 30-foot channel about 365,000 cubic yards. I estimate that this dredging will cost, including engineering and contingent expenses, 25 cents per cubic yard. I therefore estimate that these channels will cost—

For 25-foot channel, 55,000, at 25 cents, equals \$13,750.

For 30-foot channel, 365,000, at 25 cents, equals \$91,750.

This channel lies under the guns of forts Morgan and Gaines, and Sand Island marks the entrance. I am of the opinion that the channel is worthy of improvement to a depth of 30 feet. I am of this opinion because there is a commodious anchorage with this depth inside of Mobile Point, which should in time of peace be made available for vessels desiring to coal or to come in for refuge. In time of war it would be of great convenience for coaling and for protection. The commerce of Mobile is increasing rapidly, and I believe that the improvement is worthy of being undertaken.

I add to this statistics of the amount of shipping using this channel during the present fiscal year to November 1, 1900, and for the same portion of the last fiscal year.

¹ Not printed.

MOBILE HARBOR, ALABAMA.

VESSELS ENTERED.

	1899.				1900.			
	Domestic.		Foreign.		Domestic.		Foreign.	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
July.....	5	3,912	54	39,197	11	11,071	55	43,150
August.....	3	3,362	42	30,420	7	8,559	57	42,936
September.....	4	5,295	49	36,439	3	3,407	31	22,543
October.....	10	11,652	59	47,032	4	6,200	71	54,142
Total.....	22	24,221	204	153,088	25	29,237	214	162,771

VESSELS CLEARED.

	1899.				1900.			
	Domestic.		Foreign.		Domestic.		Foreign.	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
July.....	3	2,950	48	35,390	6	8,999	67	54,835
August.....	7	3,940	55	42,183	9	11,731	56	49,171
September.....	9	7,559	41	32,044	3	3,217	37	24,683
October.....	8	10,692	42	27,386	6	5,417	51	35,867
Total.....	27	25,141	186	137,003	24	28,964	211	164,556

	Value of exports.		Value of imports.	
	1899.	1900.	1899.	1900.
July.....	\$459,459	\$909,343	\$211,915	\$274,121
August.....	656,845	954,533	195,515	137,429
September.....	587,940	737,982	203,154	165,375
October.....	942,618	1,166,558	142,700	255,205
Total.....	2,646,862	3,768,416	753,284	832,130

Respectfully submitted.

WM. T. ROSSELL,
Major, Corps of Engineers.

Brig. Gen. JOHN M. WILSON,
Chief of Engineers, U. S. A.
(Through the Division Engineer.)

[First indorsement.]

U. S. ENGINEER OFFICE,
Baltimore, Md., December 4, 1900.

Respectfully submitted to the Chief of Engineers, United States Army.

In view of the facts stated and the comparatively small cost of such an improvement, as well as the importance of that entrance, I am of the opinion that a channel 30 feet deep, at an estimated cost of \$91,750, is worthy of being undertaken by the Government.

PETER C. HAINS,
Colonel, Corps of Engineers,
Division Engineer, Southeast Division.